


February 3, 2018

VIA ECFS

The Honorable Ajit Pai
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: ***Ex Parte Letter***

GN Docket No. 17-183, *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*

Dear Chairman Pai:

The undersigned companies (the "12 GHz Satellite Alliance") write to express their unified support for the Commission to preserve and protect the 12.2-12.7 GHz band (the "12 GHz band") for satellite use.[1] The 12 GHz Satellite Alliance is comprised of global, regional, and domestic satellite companies, all of whom either currently provide satellite service in the 12 GHz band or will do so in the near future.

Valuable satellite services intensively utilize the 12 GHz band—from the DBS service provided to consumers across the U.S. for over two decades to the ground-breaking proposals for

[1] The 12 GHz Satellite Coalition is comprised of WorldVu Satellites Limited ("OneWeb"), Space Norway AS ("Space Norway"), Intelsat Corporation ("Intelsat"), and The Boeing Company ("Boeing").

non-geostationary orbit ("NGSO"), fixed-satellite service ("FSS") systems poised to commence service within the next year.[2] Clearly, the 12 GHz band is prime satellite spectrum.

The 12 GHz Satellite Alliance supports the Commission's efforts to ensure there is adequate spectrum for future 5G services as articulated in the Commission's recent notice of inquiry focusing on spectrum bands between 3.7 and 24 GHz.[3] This laudable goal, however, must not be accomplished by reallocating or making secondary any satellite operations in the 12 GHz band. In particular, the 12 GHz Satellite Alliance opposes the proposals of the MVDDS 5G Coalition (the "MVDDS Coalition") and a handful of other parties in the *Mid-Band NOI* proceeding suggesting that the 12 GHz band be considered for potential wireless broadband use.[4]

As the Commission continues to develop the record in the *Mid-Band NOI* proceeding and explores spectrum bands suitable for wireless broadband use, the 12 GHz Satellite Alliance urges the Commission to reject any proposal that could undermine the 12 GHz band as a robust and

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[2] OneWeb's innovative, state-of-the-art NGSO FSS system will provide two-way, low-latency, high-speed connectivity utilizing the 12 GHz band following the launch of its first satellites this year. *See In the Matter of WorldVu Satellites Limited; Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System*, Order and Declaratory Ruling, 32 FCC Rcd 5366 (2017) (granting OneWeb market access in the 12 GHz band). Space Norway's Arctic Satellite Broadband Mission (the "ASBM") will provide innovative broadband communications solutions with pan-Arctic regional coverage through a cost-effective and technologically proven satellite constellation comprised of two satellites in highly elliptical orbit whose service area will be above 55 degrees North latitude. *See Petition for a Declaratory Ruling Granting Access to the U.S. Market for the Arctic Satellite Broadband Mission*, Order and Declaratory Ruling, 32 FCC Rcd 9649 (2017) (granting Space Norway market access in the 12 GHz band).

[3] *In re Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Inquiry, 32 FCC Rcd 6373 (2017) (the "*Mid-Band NOI*").

[4] *See generally* MVDDS 5G Coalition Comments, GN Docket No. 17-183 (filed Oct. 2, 2017) ("*MVDDS Coalition Comments*"); *see also* Comments of T-Mobile USA, Inc., GN Docket No. 17-183, at 22 (filed Oct. 2, 2017) ("*T-Mobile Comments*"); Comments of Cambridge Broadband Networks Limited, GN Docket No. 17-183, at 2 (filed Oct. 2, 2017); Letter from Lisa Chandler Cordell, Attorney for Hammer Fiber Optics Investments, Ltd. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 17-183 at 4 (Sept. 21, 2017); Letter from Jeffrey H. Blum, Senior Vice President and General Counsel, DISH Network, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 17-183 at 2-3 (filed Nov. 15, 2017) ("*DISH Ex Parte*").

reliable band for satellite services. Simply put, the 12 GHz band does not belong in any future notice of proposed rulemaking ("NPRM") proposing to permit terrestrial broadband services in mid-band spectrum.

In furtherance of the foregoing, the 12 GHz Satellite Alliance offers the following observations:

I. The Petition for Rulemaking Filed by the MVDDS Coalition Should Remain a Separate Proceeding.

The Commission first authorized MVDDS services in 2000.[5] The Commission then conducted the first auction of MVDDS spectrum in 2004.[6] Over the course of the last fourteen years, MVDDS licensees have consistently failed to utilize this spectrum, necessitating a series of waiver requests extending the deadline for MVDDS licensees to demonstrate "substantial service" to 2019.[7]

Notwithstanding this inauspicious history, the MVDDS Coalition filed a petition in 2016 requesting a rulemaking to permit two-way mobile broadband services in the 12 GHz band that threaten the continued viability of critical satellite services in that band.[8] As the record in that proceeding demonstrates, there are significant, unresolved concerns raised by the MVDDS

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[5] *See Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, First Report and Order, 16 FCC Rcd 4096, 4099-4100 ¶ 2 (2000).

[6] *See Auction of Licenses in the Multichannel Video Distribution and Data Service Rescheduled for January 14, 2004*, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures, Report No. AUC-03-53-D (Auction No. 53), *FCC Daily Digest*, DA 03-2354 (rel. Aug. 28, 2003).

[7] *See, e.g.*, Request for Waiver and Extension of Time to Demonstrate "Substantial Service," of MDS Operations, Inc., ULS File No. 0006338407 *et al.* (granted Jan. 26, 2015) (extending the substantial service showing deadline for sixty MVDDS license obtained in Auction 53 to 2019); *see also Requests of Ten Licensees of 191 Licenses in the Multichannel Video and Data Distribution Service for Waiver of the Five-Year Deadline for Providing Substantial Service*, Order, 25 FCC Rcd 10097 (2010).

[8] *MVDDS Coalition Comments* at 2; *see also* Petition of MVDDS 5G Coalition for Rulemaking to Permit Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service, RM-11768 (filed Apr. 26, 2016) ("*MVDDS Petition for Rulemaking*").

Coalition's proposals.[9] Indeed, the record reveals a very troubling finding by the MVDDS Coalition: "coexistence between MVDDS 5G operations and NGSO FSS operations is not possible without severe operational constraints on MVDDS, NGSO FSS or both services."[10] Not only is effectively prohibiting NGSO FSS operations in the 12 GHz band generally inconsistent with the public interest, it is also directly at odds with the Commission's recognition of the potential for NGSO FSS systems to bridge the digital divide.[11] The record in the *MVDDS Petition for Rulemaking* proceeding also demonstrates potentially debilitating interference into DBS services.

The MVDDS Coalition's attempt to end-run these concerns identified in the *MVDDS Petition for Rulemaking* proceeding by raising their proposal in the *Mid-Band NOI* proceeding is inconsistent with the aims of the *Mid-Band NOI*, and it undermines the public interest. The

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[9] *See, e.g.*, Opposition of Intelsat License LLC, RM-11768, at 1 (filed June 3, 2016) (opposing "both the proposal to allow mobile services in a DBS band and any degradation of the NGSO FSS allocation"); Statement of AT&T Opposing Petition for Rulemaking, RM-11768, at 1 (filed June 8, 2016) (stating that "AT&T cannot support the Petition for Rulemaking at this time without a more compelling explanation of how any changes would be consistent with protecting DBS services in the 12 GHz band."); Opposition to Petition for Rulemaking of Space Exploration Technologies Corporation, RM-11768, at 4 (filed June 8, 2016) (arguing that "[t]he Petition presents no reason to now alter that carefully crafted balance, but instead asks the Commission to grant MVDDS license holders windfall mobile use rights and strand NGSO FSS investment as the industry is on the precipice of delivering the exact types of innovative services the Commission envisioned when it established the sharing regime in 2002."); Reply of SES S.A., RM-11768, at 4 (filed June 23, 2016) (noting that "[t]hese flaws in the analysis completely undercut any confidence the Commission might have in the Coalition's claims.").

[10] *In re MVDDS 5G Coalition Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service*, Comments of the MVDDS 5G Coalition, RM-11768, Attachment I at 35 (filed June 8, 2016).

[11] *See Statement of Chairman Ajit Pai regarding Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 7809 (2017) ("As we strive to close the digital divide, we must be open to any and every technology that could connect consumers across the country. That's why we once again look to the skies for inspiration—and in particular, to new satellite constellations that offer potential for bridging this gap.").

Commission should resist these efforts by the MVDDS Coalition and continue to address its proposal in the separate rulemaking proceeding established almost two years ago.

II. Current and Planned Satellite Use of the 12 GHz Band for Satellite Services Should Not be Put at Risk by the Introduction of Terrestrial Wireless Service Operations.

A few parties ask the Commission to evaluate the 12 GHz band for potential terrestrial wireless broadband use.[12] While it is true the Commission in the *Mid-Band NOI* asked commenters to identify new bands between 3.7 and 24 GHz that might be "suitable candidates" for expanded flexible use,[13] the Commission is expressly focused on only "the most viable repurposing proposals."[14]

The 12 GHz band is not a suitable candidate for terrestrial wireless broadband use. The satellite industry is not merely "interested" in the 12 GHz band; as noted above, GSO operators intensively use this band every day while the planning, investment, and construction necessary to utilize this band for next generation satellite-delivered broadband is already well underway.

The DBS bands are filled with literally millions of receive-only DBS antennas that inherently are incompatible with a terrestrial mobile service. Additionally, there are FSS gateway operations in the band. Intelsat, for example, has FSS earth station licenses using the 12.2-12.5 GHz band on a non-interference basis with respect to DBS operations.[15] Existing FSS gateway operations that were designed and developed to co-exist with existing incumbent uses of the band should not be put at risk by an expansion of incumbent use in a manner previously rejected.

Moreover, satellite use of the 12 GHz band is increasing. Innovative NGSO FSS architectures will allow companies like OneWeb, Space Norway, and Boeing to offer high-

[12] *See, e.g., T-Mobile Comments* at 22.
[13] *Mid-Band NOI* at ¶ 2.
[14] *Id*. at ¶ 3.
[15] *See* Intelsat License LLC, File No. MFS-20120730-00700 (E980460); Intelsat License LLC, File No. SES-LIC-20170626-00682 (E170121).

quality broadband connectivity to those who currently lack broadband access and advanced, high-capacity broadband capabilities to metropolitan areas and large enterprise customers, all at speeds and latencies comparable to terrestrial fiber networks. Space Norway's ASBM will provide reliable, high-speed broadband services to unserved and underserved users in the Arctic region, including local communities and governments in Alaska, search and rescue missions, and research and environmental groups. OneWeb will provide affordable, high-speed satellite-delivered broadband to the U.S. market in the very near future. The Boeing Company is seeking Commission authority to launch and operate broadband satellite systems that would use portions of the Ka- and V-bands to provide very high data rate services.[16]

Given the current intensive use of the 12 GHz band for satellite services, the terrestrial wireless proposal is simply not viable and has no place in any future NPRM resulting from this proceeding. Moreover, the Commission made clear its expectation that any proposal to evaluate new bands should respond to the many enumerated questions listed in the *Mid-Band NOI*, which the terrestrial wireless interests failed to do.[17] Under these circumstances, the Commission should reject the proposals to consider in this proceeding the 12 GHz band for terrestrial wireless use.

In sum, the satellite industry's long history of intensive use of the 12 GHz band—coupled with the imminent deployment of new NGSO FSS systems in that band for the provision of reliable broadband services in places that need it the most—make it unsuitable as a candidate for

[16] *See* The Boeing Company, Application for Authority to Launch and Operate a Non Geostationary Low Earth Orbit Satellite System in the Fixed-Satellite Service (S2966), SAT-LOA-20160622-00058 & SAT-AMD-20170301-00030 (filed June 22, 2016); The Boeing Company, Application for Authority to Launch and Operate a Ka-band Non-Geostationary Satellite Orbit System in the Fixed-Satellite Service and in the Mobile Satellite Service (call sign S2977), SAT-LOA-20161115-00109 (filed Nov. 15, 2016); The Boeing Company, Application for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in the Fixed-Satellite Service (call sign S2993), IBFS File No. SAT-LOA-20170301-00028 (filed March 1, 2017).

[17] *Id*. at ¶ 37.

reallocation to terrestrial wireless uses. The 12 GHz band simply has no place in any forthcoming NPRM resulting from the *Mid-Band NOI*.

Sincerely,

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